SA-VE702/VE705/ WMS7/SS-MS7

SERVICE MANUAL

US Model
Canadian Model
SA-VE705/WMS7/SS-MS7
AEP Model
UK Model
E Model

Photo : SA-WMS7 Photo : SS-MS7

The SA-VE702 system consists of one unit of SA-WMS5 and two units of SS-MS7.
The SA-VE705 system consists of one unit of SA-WMS7 and five units of SS-MS7.

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS:

US model

POWER OUTPUT AND TOTAL HARMONIC DISTORTION :
with 8 Ω loads, both channels driven, from 20 - 150Hz; rates 120 W per channel minimum RMS power, with no more than 0.8% total harmonic distortion from 250 mW to rated output.

SS-MS7 (front, center, and rear speakers)

Speaker system: 2 way, magnetically shielded
Speaker units
- Tweeter : 1.9 cm (3/4 in.), dome type
- Woofer : 5 cm (2 in.)× 2, balanced drive type

Enclosure type: Bass reflex
Rated impedance: 8 Ω
Power handling capacity
Maximum input power: 140 W
Sensitivity level: 87 dB (1W, 1m)
Frequency range: 120 Hz - 40,000 Hz
Dimensions (w/h/d)
- When attached speaker grilles: Approx. 86 × 169 × 130 mm (3 1/2 × 6 3/4 × 5 1/8 in.) each
- When attached to supplied speaker stand: Approx. 96 × 207 × 141 mm (3 7/8 × 8 1/4 × 5 5/8 in.) each (Front (and rear)speakers) Approx. 169 × 131 × 144 mm (6 3/4 × 5 1/4 × 5 3/4 in.), (Center speaker: pointed upwards) Approx. 169 × 118 × 141 mm (6 3/4 × 4 3/4 × 5 5/8 in.), (Center speaker: pointed downwards):

Mass
- When attached speaker grilles: Approx. 1.3 kg (2lb 14oz) each
- When attached to supplied speaker stand: Approx. 1.4 kg (3lb 1oz) each, (Front (and rear) speakers) Approx. 1.4 kg (3lb 1oz)(Center speaker)

SS-WMS7 (subwoofer)

System

Speaker system: Active subwoofer, magnetically shielded
Speaker unit: Woofer : 20 cm (8 in.), cone type
Enclosure type: Advanded SAW type
Practical maximum output: 120 W
Reproduction frequency range: 24 Hz - 150 Hz

Inputs

LINE IN (input pin jack)
SPEAKER IN (input terminals)

Outputs

LINE OUT (output pin jack)
SPEAKER OUT (output terminals)

General

Power requirements
USA and Canada : 120 V AC, 60 Hz
Europe : 220 - 230 V AC, 50/60 Hz
Others : 220 - 240 V AC, 50/60 Hz
Power consumptions: 80 W
Dimensions (w/h/d): Approx. 230 × 380 × 470 mm (9 1/8 × 15 × 18 5/8 in.), including front grille
Mass: Approx. 17 kg (37 lb 8oz)

Supplied accessories

SA-VE705

Speaker stands (for the front and rear speakers) (4)
Speaker stand (for the center speaker) (1)
Screws (for the speaker stands) (10)
Washers (for the speaker stands) (10)
Brackets (for the front and rear speaker stands) (4)
Speaker grilles (5)
Audio connecting cord (1)
Speaker connecting cords, 2.5 m(8 ft 2 1/2 in.) (5)
Speaker connecting cords, 10 m(32 ft 9 3/4 in.) (2)

SA-VE702

Speaker stands (for the front speakers) (2)
Screws (for the speaker stands) (4)
Washers (for the speaker stands) (4)
Brackets (for the front speaker stands) (2)
Speaker grilles (2)
Audio connecting cord (1)
Speaker connecting cords, 2.5 m(8 ft 2 1/2 in.) (4)

Design and specifications are subject to change without notice

MICRO SATELLITE SYSTEM

MICROFILM

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

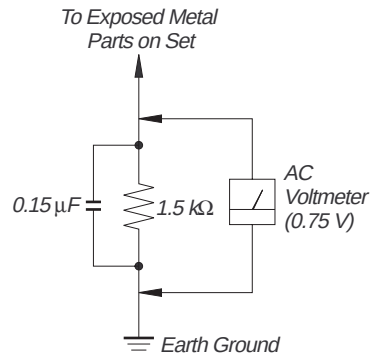


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

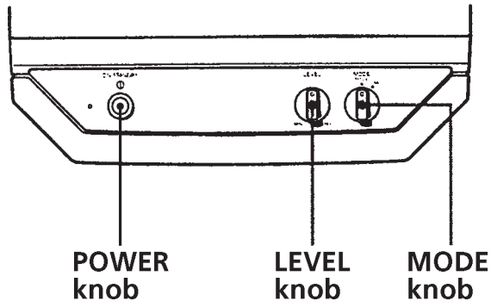
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

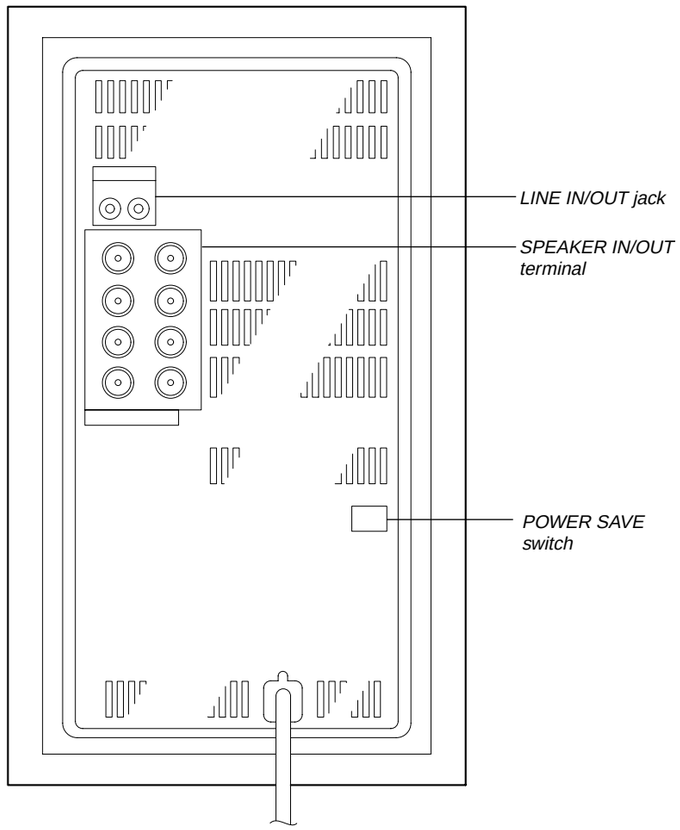
SECTION 1
GENERAL

- **Location of Controls**

SA-WMS7
– Front view –



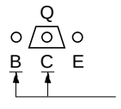
– Rear view –



SECTION 2
DIAGRAMS

2-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ▒▒▒▒ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)
- Indication of transistor.



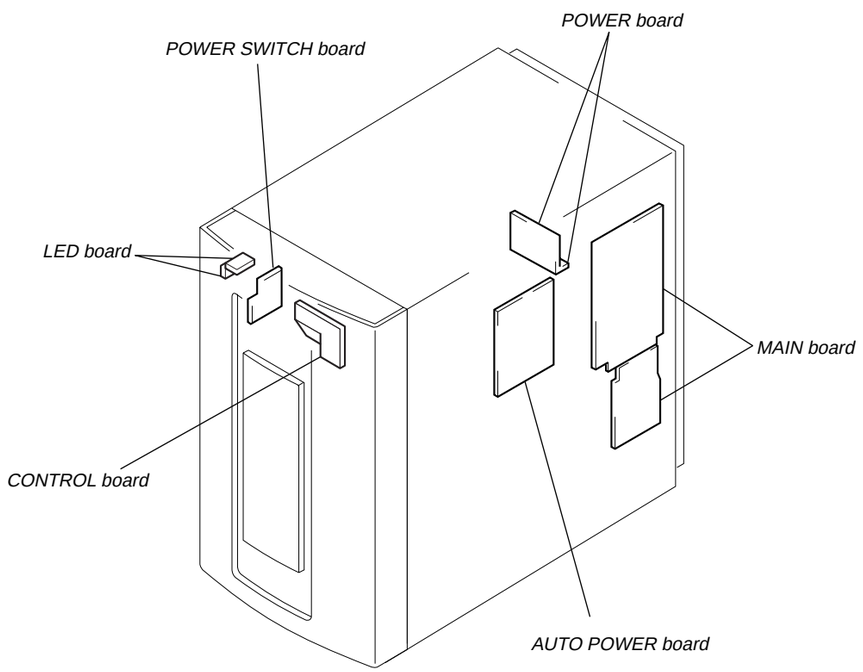
These are omitted.

Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⎓ : nonflammable resistor.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

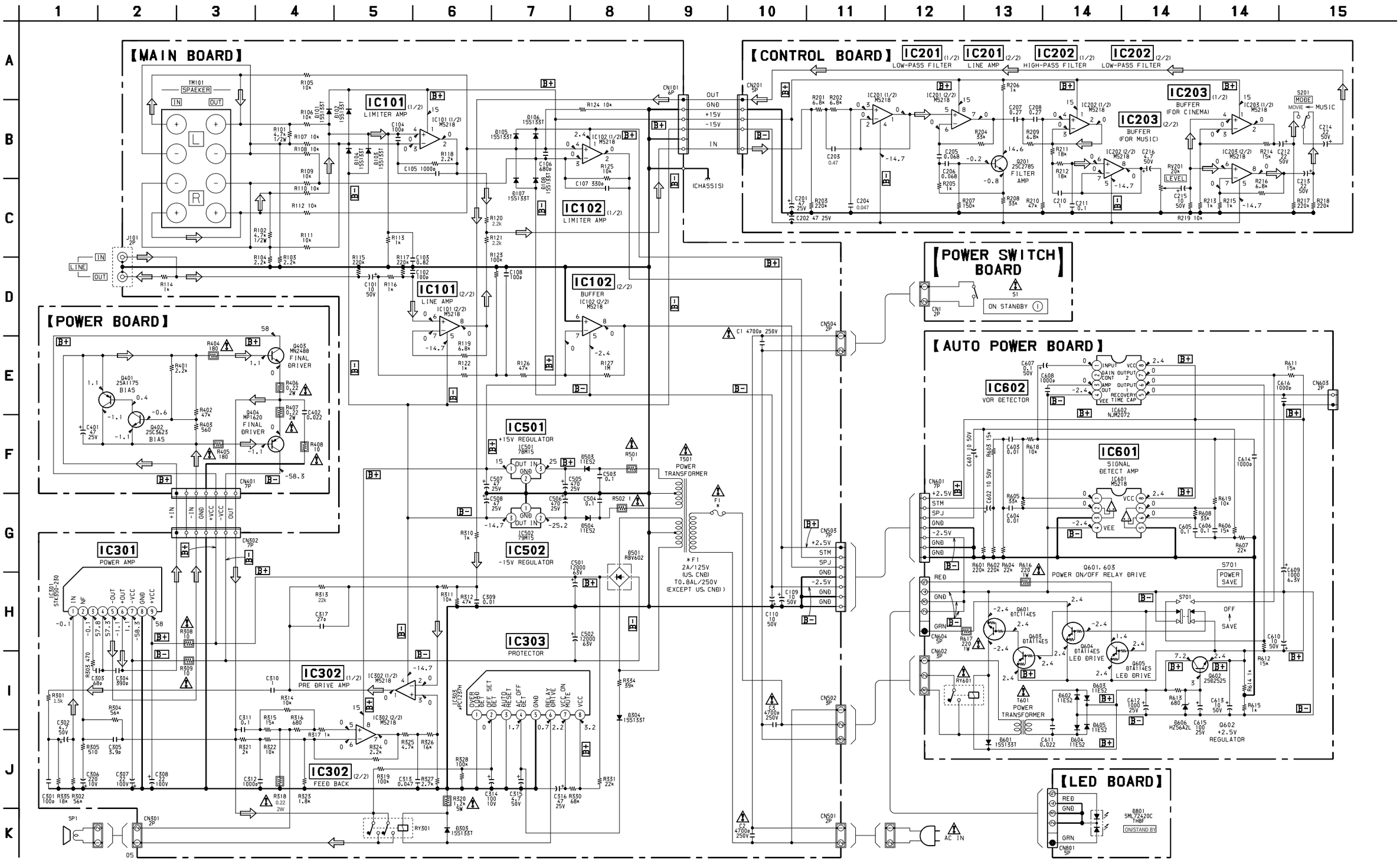
- B+ : B+ Line.
- B− : B– Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : AUDIO
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : AUDIO
- Abbreviation
  CND : Canadian

- **Circuit Boards Location**
  SA-WMS7



2-2. SCHEMATIC DIAGRAM

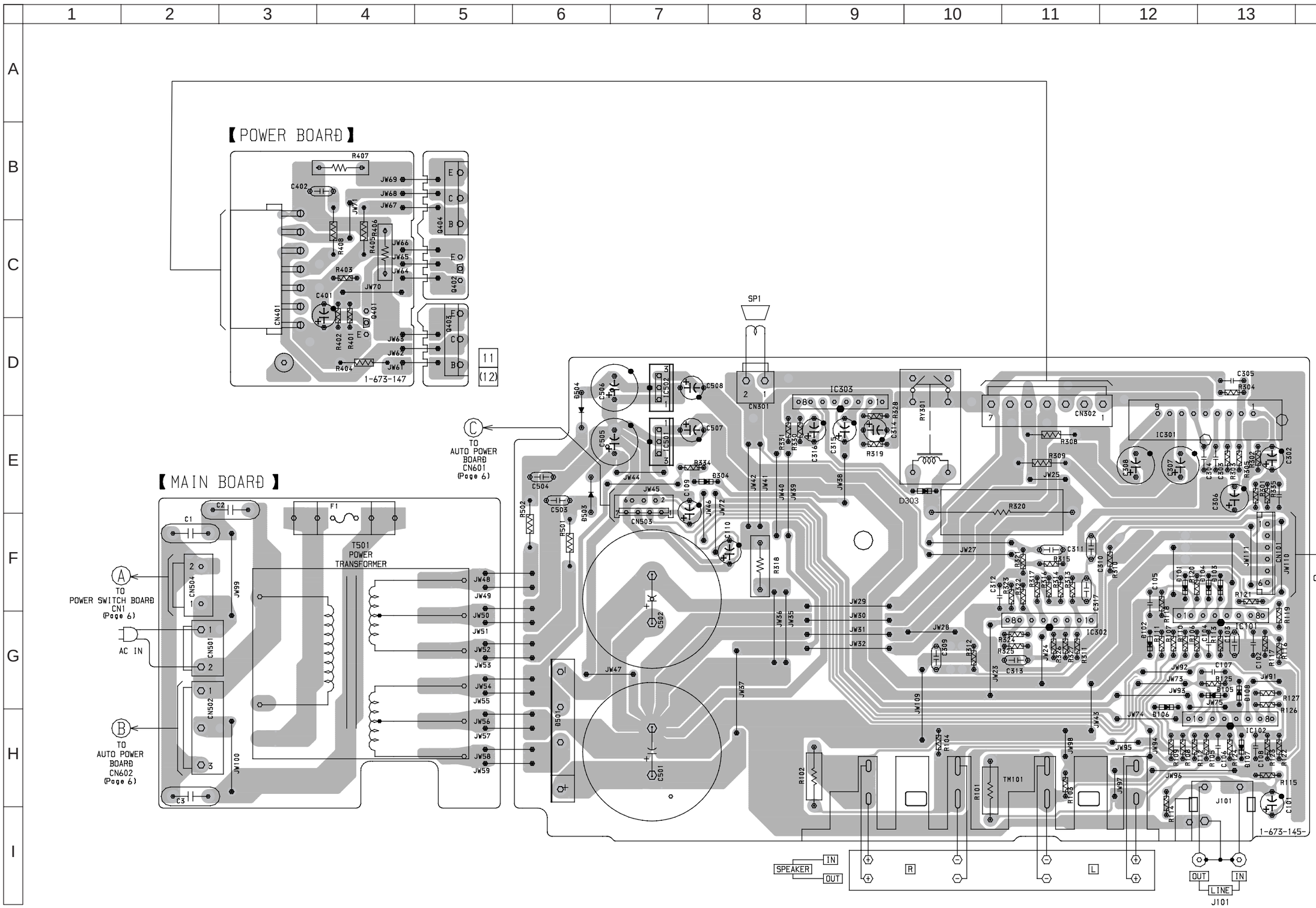
• See page 7 for IC Block Diagrams.



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

2-3. PRINTED WIRING BOARD MAIN SECTION

• See page 3 for Circuit Boards Location.

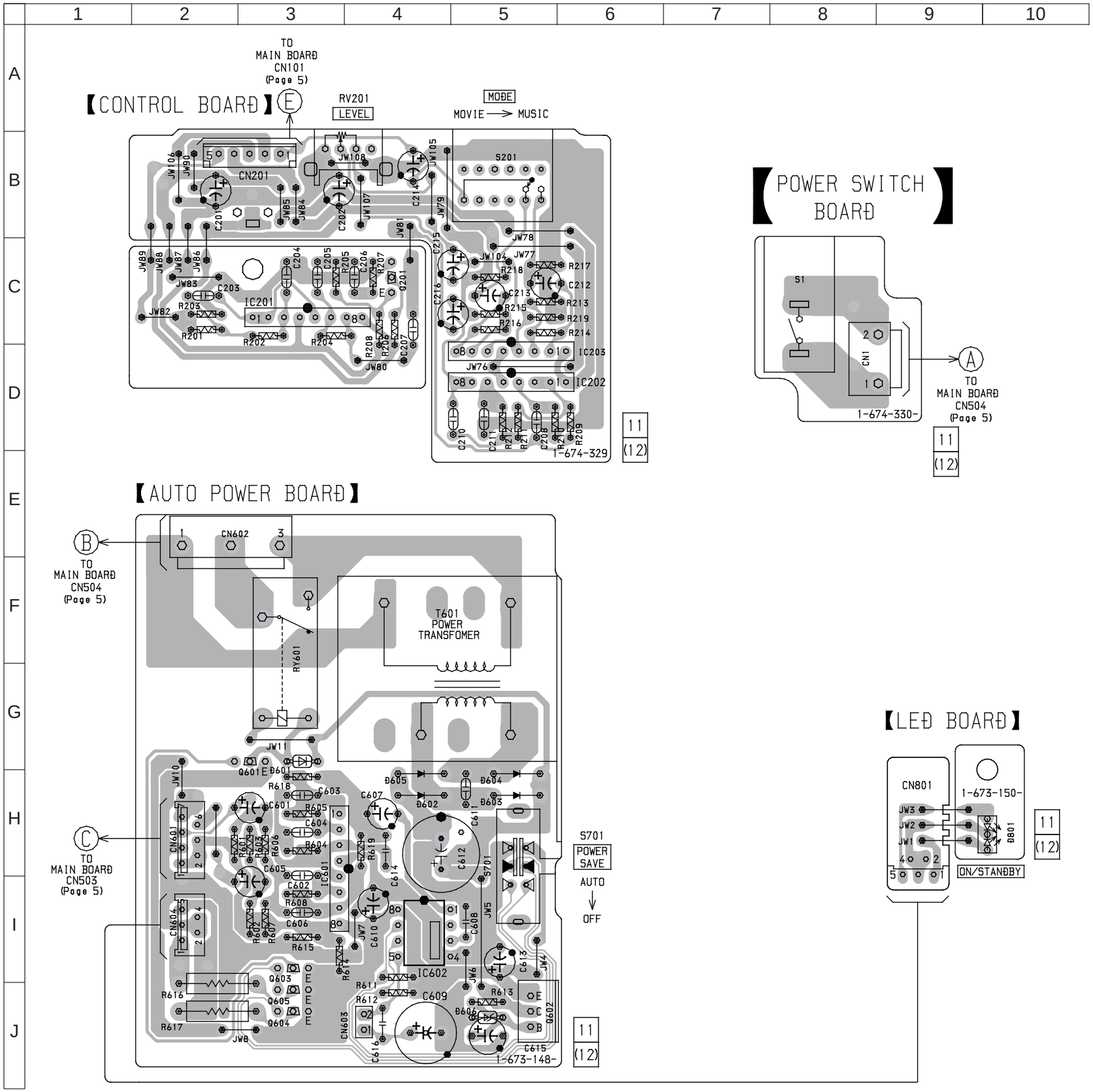


• **Semiconductor Location**

Ref. No.	Location
D101	F-12
D102	G-12
D103	F-13
D104	F-13
D105	G-13
D106	G-12
D107	H-13
D108	G-13
D303	E-10
D304	E-7
D501	H-6
D503	E-6
D504	D-6
IC101	G-13
IC102	G-13
IC301	E-12
IC302	G-11
IC303	D-9
IC501	E-7
IC502	D-7
Q401	D-4
Q402	C-5
Q403	D-5
Q404	B-5

2-4. PRINTED WIRING BOARD CONTROL SECTION

• See page 3 for Circuit Boards Location. • See page 4 for Schematic Diagram.

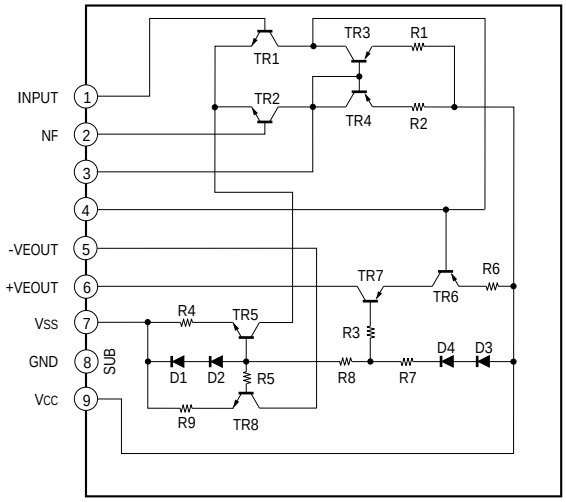


• **Semiconductor Location**

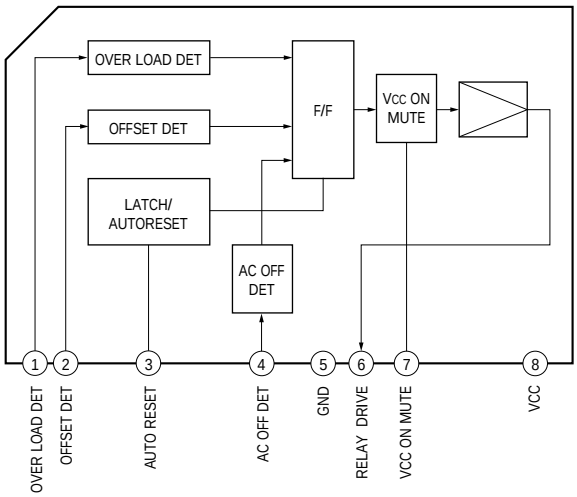
Ref. No.	Location
D601	G-3
D602	H-4
D603	H-5
D604	H-5
D605	H-4
D606	J-5
D801	H-10
IC201	C-3
IC202	D-5
IC203	D-5
IC601	H-3
IC602	I-4
Q201	C-4
Q601	G-3
Q602	J-5
Q603	I-3
Q604	J-3
Q605	J-3

• **IC Block Diagrams**

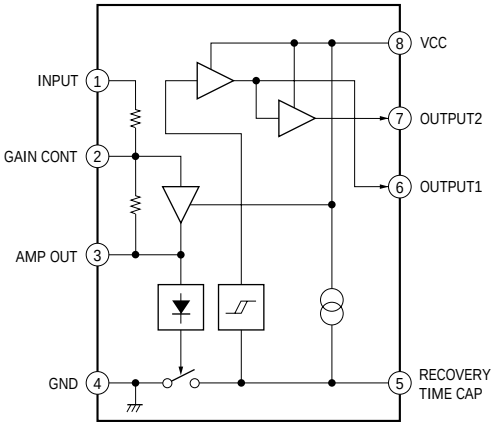
IC301　STK350-230 (MAIN Board)



IC303　μPC1237HA (MAIN Board)



IC602　NJM2072D (AUTO POWER Board)



SECTION 3
EXPLODED VIEWS

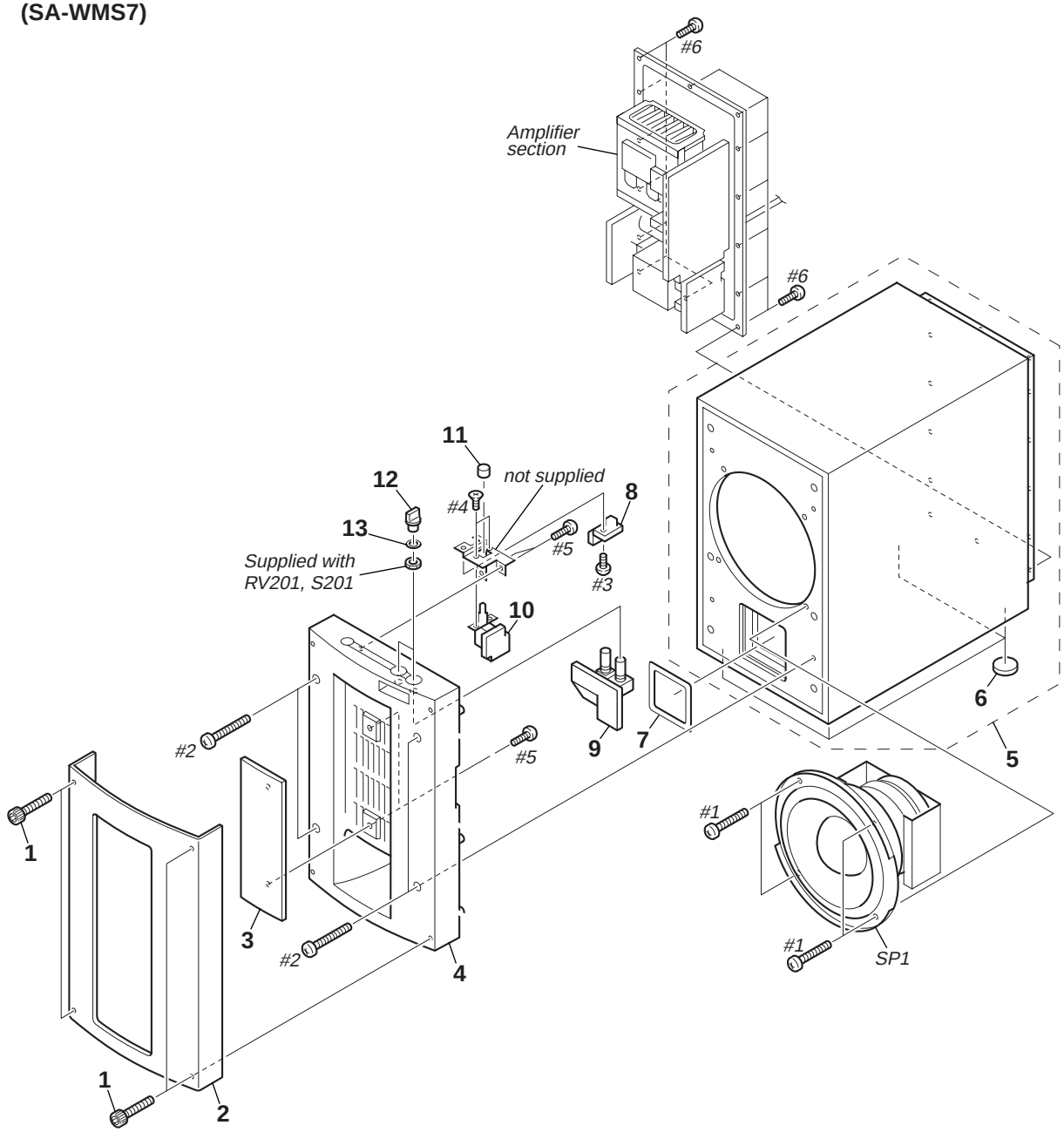
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  G : German model
  MY : Malaysia model
  SP : Singapore model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

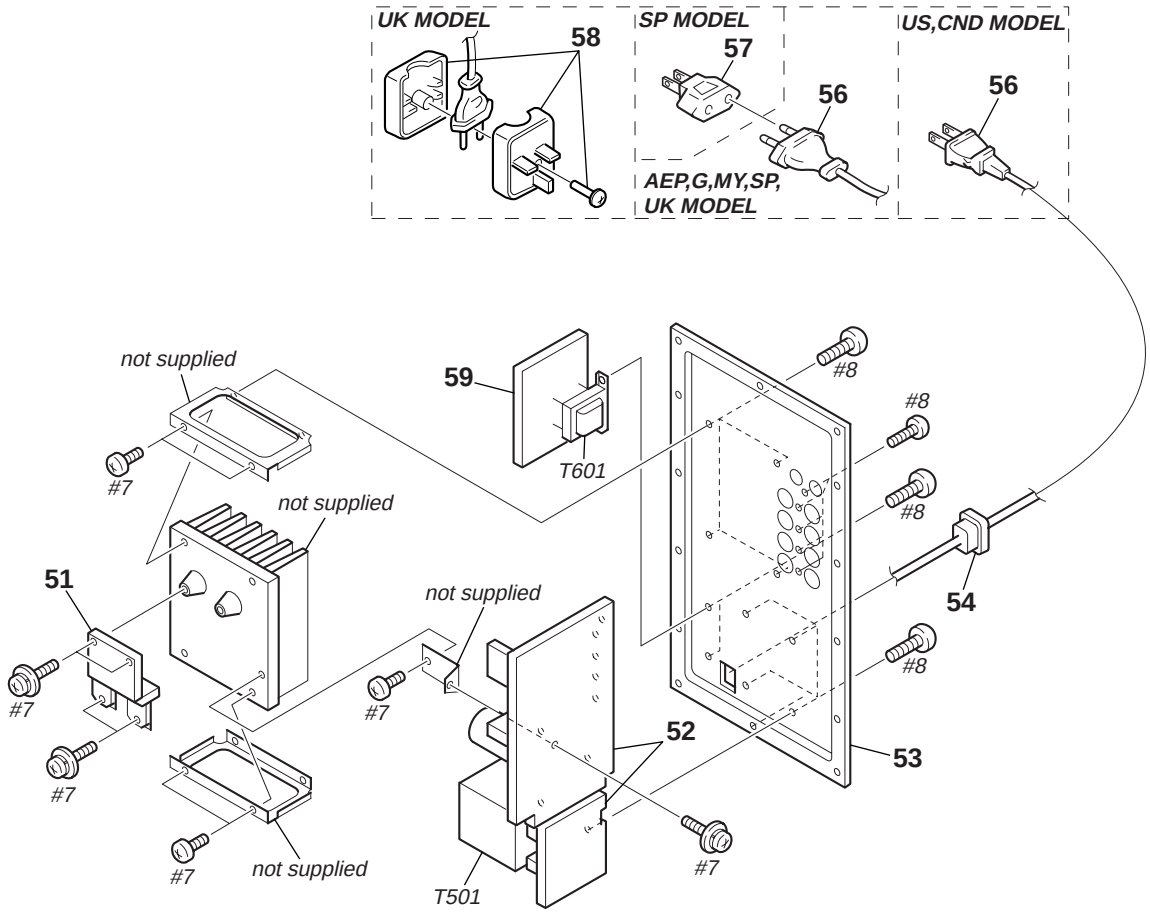
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) FRONT PANEL SECTION (SA-WMS7)



Ref. No.	Part No.	Description	Remark
1	4-222-422-01	SCREW (4 × 16)	
2	4-220-858-01	PANEL(A), ORNAMENTAL	
3	4-220-859-01	PANEL(B), ORNAMENTAL	
4	X-4951-887-1	PANEL ASSY, FRONT	
5	A-4411-710-A	CABINET ASSY, SPEAKER	
6	4-981-864-01	FOOT	
7	4-222-467-01	PACKING	
8	1-673-150-11	LED BOARD	
9	1-674-329-11	CONTROL BOARD	
10	1-674-330-11	POWER SWITCH BOARD	
11	4-973-938-31	KNOB(A), PUSH	
12	4-999-482-11	KNOB(VOL)	
13	4-217-642-01	SHEET	
SP1	1-529-513-11	SPEAKER	

(2) AMPLIFIER SECTION (SA-WMS7)

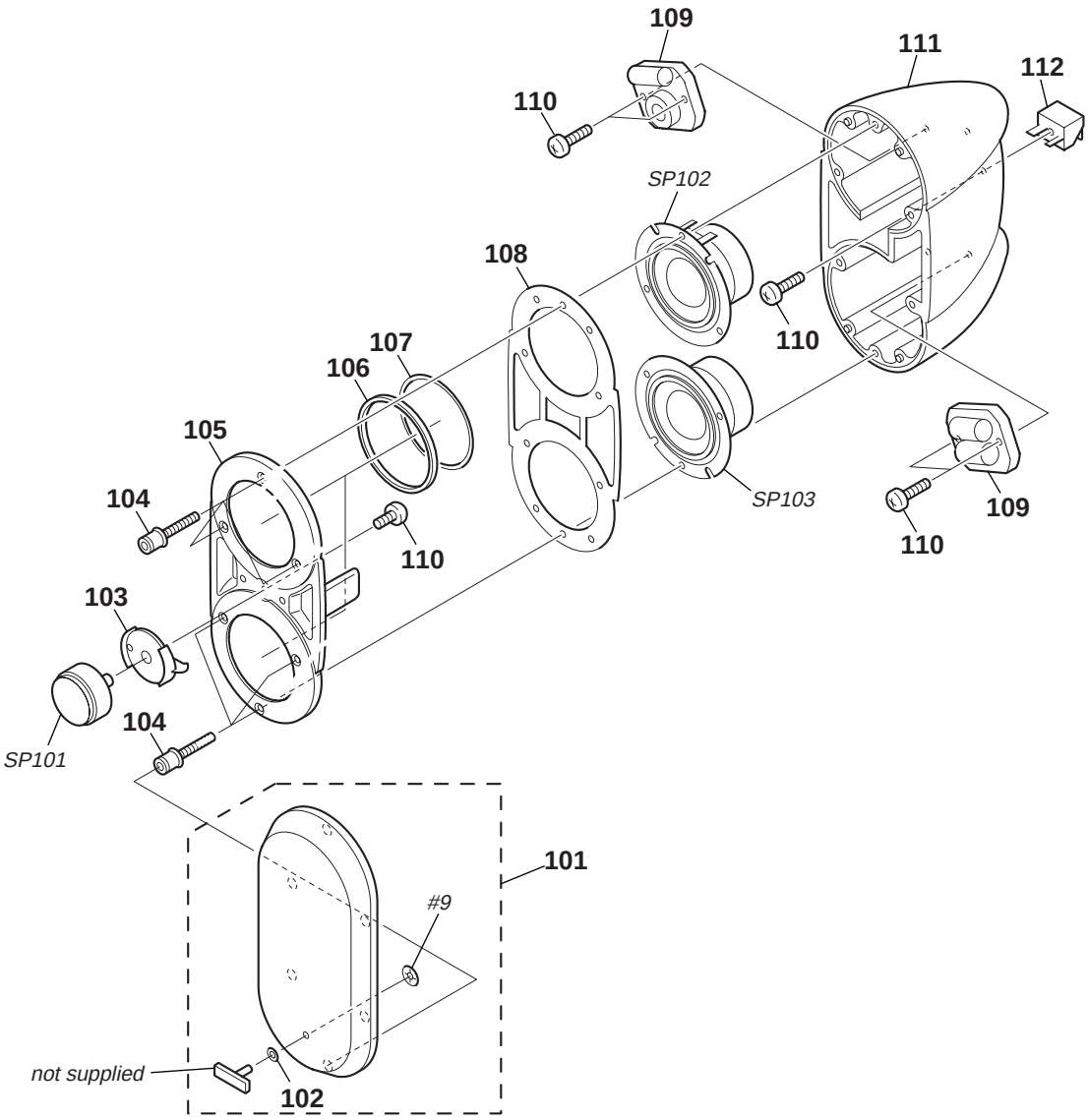


Ref. No.	Part No.	Description	Remark
51	1-673-147-11	POWER BOARD	
52	A-4426-644-A	MAIN BOARD, COMPLETE	
53	4-222-939-11	PANEL, REAR (US,CND)	
53	4-222-939-21	PANEL, REAR (AEP,G,UK,MY,SP)	
* 54	3-703-244-00	BUSHING (2104), CORD	
55	3-710-901-11	SCREW, TAPPING	
⚠56	1-769-744-11	CORD, POWER (AEP,G,UK,MY,SP)	
⚠56	1-783-531-11	CORD, POWER (US,CND)	

Ref. No.	Part No.	Description	Remark
⚠57	1-569-008-21	ADAPTOR, CONVERSION 2P (SP)	
⚠58	1-770-019-21	ADAPTOR, CONVERSION PLUG 3P (UK)	
59	A-4419-290-A	AUTO POWER BOARD, COMPLETE	
⚠T501	1-433-726-11	TRANSFORMER, POWER (US,CND)	
⚠T501	1-433-728-12	TRANSFORMER, POWER (AEP,G,UK,MY,SP)	
⚠T601	1-433-731-11	TRANSFORMER, POWER (US,CND)	
⚠T601	1-433-732-11	TRANSFORMER, POWER (AEP,G,UK,MY,SP)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(3) SS-MS7



Ref. No.	Part No.	Description	Remark
101	X-4951-883-1	FRAME ASSY, GRILLE	
102	3-701-436-21	WASHER POLYEHTHYLENE	
103	4-220-786-01	BASE, TW	
104	4-220-784-01	SCREW, ORNAMENTAL	
105	4-220-779-01	PANEL, FRONT	
106	4-220-781-01	RING	
107	4-222-663-01	PACKING	
108	4-220-785-01	PACKING	

Ref. No.	Part No.	Description	Remark
109	1-761-265-11	MOUNTED PC BOARD (NETWORK)	
110	4-986-971-11	SCREW (3.5)	
111	4-220-780-01	CABINET	
112	1-694-516-11	TERMINAL, SPEAKER	
SP101	1-529-291-11	SPEAKER (2.5cm)	
SP102	1-529-290-11	SPEAKER (5cm)	
SP103	1-529-290-11	SPEAKER (5cm)	

SECTION 4
ELECTRICAL PARTS LIST

AUTO POWER CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  CND : Canadian model
  SP : Singapore model
  G : German model
  MY : Malaysia model

- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH

When indicating parts by reference number, please include the board name.

- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
	A-4419-290-A	AUTO POWER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C601	1-126-964-11	ELECT	10uF	20%	50V
C602	1-126-964-11	ELECT	10uF	20%	50V
C603	1-162-306-11	CERAMIC	0.01uF	20%	16V
C604	1-162-306-11	CERAMIC	0.01uF	20%	16V
C605	1-164-159-11	CERAMIC	0.1uF		50V
C606	1-164-159-11	CERAMIC	0.1uF		50V
C607	1-126-956-91	ELECT	0.1uF	20%	50V
C608	1-162-294-31	CERAMIC	0.001uF	10%	50V
C609	1-126-916-11	ELECT	1000uF	20%	6.3V
C610	1-126-964-11	ELECT	10uF	20%	50V
C611	1-161-494-00	CERAMIC	0.022uF		25V
C612	1-126-942-61	ELECT	1000uF	20%	25V
C613	1-126-964-11	ELECT	10uF	20%	50V
C614	1-162-294-31	CERAMIC	0.001uF	10%	50V
C615	1-104-665-11	ELECT	100uF	20%	25V
C616	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
CN601	1-568-439-11	SOCKET, CONNECTOR 7P			
* CN602	1-564-687-11	PIN, CONNECTOR 3P			
* CN603	1-565-513-11	PIN, CONNECTOR 2P			
CN604	1-569-315-11	SOCKET, CONNECTOR 5P			
* CN605	1-565-514-11	SOCKET, CONNECTOR 2P			
		< DIODE >			
D601	8-719-991-33	DIODE 1SS133T-77			
D602	8-719-200-82	DIODE 11ES2			
D603	8-719-200-82	DIODE 11ES2			
D604	8-719-200-82	DIODE 11ES2			
D605	8-719-200-82	DIODE 11ES2			
D606	8-719-985-85	DIODE HZS6A2L			
		< IC >			
IC601	8-759-634-50	IC M5218AL			
IC602	8-759-701-55	IC NJM2072D			

Ref. No.	Part No.	Description			Remarks
		< TRANSISTOR >			
Q601	8-729-029-66	TRANSISTOR DTC114ES			
Q602	8-729-026-68	TRANSISTOR 2SD2525			
Q603	8-729-422-57	TRANSISTOR DTA114ES			
Q604	8-729-422-57	TRANSISTOR DTA114ES			
Q605	8-729-422-57	TRANSISTOR DTA114ES			
		< RESISTOR >			
R601	1-247-887-00	CARBON	220K	5%	1/4W
R602	1-247-887-00	CARBON	220K	5%	1/4W
R603	1-249-431-11	CARBON	15K	5%	1/4W
R604	1-249-433-11	CARBON	22K	5%	1/4W
R605	1-249-435-11	CARBON	33K	5%	1/4W
R606	1-249-431-11	CARBON	15K	5%	1/4W
R607	1-249-433-11	CARBON	22K	5%	1/4W
R608	1-249-435-11	CARBON	33K	5%	1/4W
R611	1-249-431-11	CARBON	15K	5%	1/4W
R612	1-249-431-11	CARBON	15K	5%	1/4W
R613	1-249-415-11	CARBON	680	5%	1/4W F
R614	1-249-417-11	CARBON	1K	5%	1/4W F
R615	1-249-417-11	CARBON	1K	5%	1/4W F
⚠R616	1-215-865-81	METAL OXIDE	220	5%	1W
⚠R617	1-215-865-81	METAL OXIDE	220	5%	1W
R618	1-249-429-11	CARBON	10K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
		< RELAY >			
RY601	1-755-276-11	RELAY, POWER			
		< SWITCH >			
S701	1-570-707-31	SWITCH, SLIDE (POWER SAVE)			
		**********			
	1-674-329-11	CONTROL BOARD			
		**********			
		< CAPACITOR >			
C201	1-104-664-11	ELECT	47uF	20%	25V
C202	1-104-664-11	ELECT	47uF	20%	25V
C203	1-136-173-00	FILM	0.47uF	5%	50V
C204	1-136-161-00	FILM	0.047uF	5%	50V
C205	1-136-163-00	FILM	0.068uF	5%	50V

CONTROL LED MAIN

Ref. No.	Part No.	Description			Remarks
C206	1-136-163-00	FILM	0.068uF	5%	50V
C207	1-136-170-00	FILM	0.27uF	5%	50V
C208	1-136-170-00	FILM	0.27uF	5%	50V
C210	1-136-177-00	FILM	1uF	5%	50V
C211	1-136-165-00	FILM	0.1uF	5%	50V
C212	1-126-965-11	ELECT	22uF	20%	50V
C213	1-126-965-11	ELECT	22uF	20%	50V
C214	1-126-965-11	ELECT	22uF	20%	50V
C215	1-126-964-11	ELECT	10uF	20%	50V
C216	1-126-963-11	ELECT	4.7uF	20%	50V
		< CONNECTOR >			
* CN201	1-564-520-11	PLUG, CONNECTOR 5P			
		< IC >			
IC201	8-759-634-50	IC M5218AL			
IC202	8-759-634-50	IC M5218AL			
IC203	8-759-634-50	IC M5218AL			
		< TRANSISTOR >			
Q201	8-729-178-55	TRANSISTOR 2SC2785-E			
		< RESISTOR >			
R201	1-249-427-11	CARBON	6.8K	5%	1/4W F
R202	1-249-427-11	CARBON	6.8K	5%	1/4W F
R203	1-247-887-00	CARBON	220K	5%	1/4W
R204	1-249-435-11	CARBON	33K	5%	1/4W
R205	1-249-417-11	CARBON	1K	5%	1/4W F
R206	1-249-417-11	CARBON	1K	5%	1/4W F
R207	1-247-883-00	CARBON	150K	5%	1/4W
R208	1-249-435-11	CARBON	33K	5%	1/4W
R209	1-249-427-11	CARBON	6.8K	5%	1/4W F
R210	1-249-437-11	CARBON	47K	5%	1/4W
R211	1-249-432-11	CARBON	18K	5%	1/4W
R212	1-249-432-11	CARBON	18K	5%	1/4W
R213	1-249-417-11	CARBON	1K	5%	1/4W F
R214	1-249-431-11	CARBON	15K	5%	1/4W
R215	1-249-417-11	CARBON	1K	5%	1/4W F
R216	1-249-427-11	CARBON	6.8K	5%	1/4W F
R217	1-247-887-00	CARBON	220K	5%	1/4W
R218	1-247-887-00	CARBON	220K	5%	1/4W
R219	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV201	1-225-826-11	RES, VAR, CARBON 20K (LEVEL)			
		< SWITCH >			
S201	1-771-632-11	SWITCH, ROTARY (MODE)			

****

Ref. No.	Part No.	Description	Remarks
	1-673-150-11	LED BOARD	
		**********	
		< CONNECTOR >	
CN801	1-569-299-11	SOCKET, CONNECTOR (L TYPE) 5P	
		< LED >	
D801	8-719-061-31	LED SML72420CTH8F (POWER ON/SAVE)	

****

	A-4426-644-A	MAIN BOARD, COMPLETE	
		**********	
	1-533-233-11	HOLDER, FUSE	
		< CAPACITOR >	

⚠C1	1-113-924-11	CERAMIC	0.0047uF	20%	250V
⚠C2	1-113-924-11	CERAMIC	0.0047uF	20%	250V
⚠C3	1-113-924-11	CERAMIC	0.0047uF	20%	250V
C101	1-126-964-11	ELECT	10uF	20%	50V
C102	1-162-282-31	CERAMIC	100PF	10%	50V
C103	1-136-176-00	FILM	0.82uF	5%	50V
C104	1-162-282-31	CERAMIC	100PF	10%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-292-31	CERAMIC	680PF	10%	50V
C107	1-162-288-31	CERAMIC	330PF	10%	50V
C108	1-162-282-31	CERAMIC	100PF	10%	50V
C109	1-126-964-11	ELECT	10uF	20%	50V
C110	1-126-964-11	ELECT	10uF	20%	50V
C301	1-162-282-31	CERAMIC	100PF	10%	50V
C302	1-126-963-11	ELECT	4.7uF	20%	50V
C303	1-162-219-31	CERAMIC	68PF	5%	50V
C304	1-162-289-31	CERAMIC	390PF	10%	50V
C305	1-162-194-31	CERAMIC	3.9PF	10%	50V
C306	1-126-934-11	ELECT	220uF	20%	10V
C307	1-128-560-11	ELECT	22uF	20%	100V
C308	1-128-560-11	ELECT	22uF	20%	100V
C309	1-130-483-00	MYLAR	0.01uF	5%	50V
C310	1-136-177-00	FILM	1uF	5%	50V
C311	1-130-495-00	MYLAR	0.1uF	5%	50V
C312	1-162-294-31	CERAMIC	0.001uF	10%	50V
C313	1-130-491-00	MYLAR	0.047uF	5%	50V
C314	1-104-665-11	ELECT	100uF	20%	10V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-664-11	ELECT	47uF	20%	25V
C501	1-127-891-11	ELECT	12000uF	20%	63V
C502	1-127-891-11	ELECT	12000uF	20%	63V
C503	1-136-165-00	FILM	0.1uF	5%	50V
C504	1-136-165-00	FILM	0.1uF	5%	50V
C505	1-126-941-11	ELECT	470uF	20%	25V
C506	1-126-941-11	ELECT	470uF	20%	25V
C507	1-104-664-11	ELECT	47uF	20%	25V
C508	1-104-664-11	ELECT	47uF	20%	25V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
* CN101	1-564-521-11	PLUG, CONNECTOR 6P	
* CN301	1-565-792-11	PIN, CONNECTOR 2P	
* CN302	1-564-242-00	PIN, CONNECTOR 5P	
CN501	1-564-321-00	PIN, CONNECTOR 2P	
* CN502	1-564-687-11	PIN, CONNECTOR 3P	
CN503	1-568-439-11	SOCKET, CONNECTOR 7P	
* CN504	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D101	8-719-991-33	DIODE 1SS133T-77	
D102	8-719-991-33	DIODE 1SS133T-77	
D103	8-719-991-33	DIODE 1SS133T-77	
D104	8-719-991-33	DIODE 1SS133T-77	
D105	8-719-991-33	DIODE 1SS133T-77	
D106	8-719-991-33	DIODE 1SS133T-77	
D107	8-719-991-33	DIODE 1SS133T-77	
D108	8-719-991-33	DIODE 1SS133T-77	
D303	8-719-991-33	DIODE 1SS133T-77	
D304	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-302-37	DIODE RBV-602	
D503	8-719-200-82	DIODE 11ES2	
D504	8-719-200-82	DIODE 11ES2	
		< FUSE >	
⚠ F1	1-532-501-31	FUSE (T0.8AL/250V)(AEP,G,UK,MY,SP)	
⚠ F1	1-533-296-11	FUSE,GLASS CYLINDRICAL(DIA.5)(2A/125V)	(US,CND)
		< IC >	
IC101	8-759-634-50	IC M5218AL	
IC102	8-759-634-50	IC M5218AL	
IC301	8-749-011-16	IC STK350-230	
IC302	8-759-634-50	IC M5218AL	
IC303	8-759-111-68	IC uPC1237HA	
IC501	8-759-604-40	IC M5F78M15L	
IC502	8-759-604-46	IC M5F79M15L	
		< JACK >	
J101	1-785-795-11	JACK, PIN 2P (LINE IN/OUT)	
		< RESISTOR >	

Ref. No.	Part No.	Description			Remarks
R101	1-260-107-11	CARBON	4.7K	5%	1/2W
R102	1-260-107-11	CARBON	4.7K	5%	1/2W
R103	1-249-421-11	CARBON	2.2K	5%	1/4W F
R104	1-249-421-11	CARBON	2.2K	5%	1/4W F
R105	1-249-429-11	CARBON	10K	5%	1/4W
R106	1-249-429-11	CARBON	10K	5%	1/4W
R107	1-249-429-11	CARBON	10K	5%	1/4W
R108	1-249-429-11	CARBON	10K	5%	1/4W
R109	1-249-429-11	CARBON	10K	5%	1/4W
R110	1-249-429-11	CARBON	10K	5%	1/4W
R111	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-249-429-11	CARBON	10K	5%	1/4W
R113	1-249-417-11	CARBON	1K	5%	1/4W F
R114	1-249-417-11	CARBON	1K	5%	1/4W F
R115	1-247-887-00	CARBON	220K	5%	1/4W
R116	1-249-417-11	CARBON	1K	5%	1/4W F
R117	1-247-887-00	CARBON	220K	5%	1/4W
R118	1-249-421-11	CARBON	2.2K	5%	1/4W F
R119	1-249-427-11	CARBON	6.8K	5%	1/4W F
R120	1-249-421-11	CARBON	2.2K	5%	1/4W F
R121	1-249-421-11	CARBON	2.2K	5%	1/4W F
R122	1-249-417-11	CARBON	1K	5%	1/4W F
R123	1-249-441-11	CARBON	100K	5%	1/4W
R124	1-249-429-11	CARBON	10K	5%	1/4W
R125	1-249-429-11	CARBON	10K	5%	1/4W
R126	1-249-437-11	CARBON	47K	5%	1/4W
R127	1-247-903-00	CARBON	1M	5%	1/4W
R301	1-249-419-11	CARBON	1.5K	5%	1/4W F
R302	1-249-438-11	CARBON	56K	5%	1/4W
R303	1-249-413-11	CARBON	470	5%	1/4W F
R304	1-249-438-11	CARBON	56K	5%	1/4W
R305	1-249-442-11	CARBON	510	5%	1/4W
⚠ R308	1-247-688-11	CARBON	10	5%	1/4W F
⚠ R309	1-247-688-11	CARBON	10	5%	1/4W F
R310	1-249-417-11	CARBON	1K	5%	1/4W F
R311	1-249-429-11	CARBON	10K	5%	1/4W
R312	1-249-437-11	CARBON	47K	5%	1/4W
R313	1-249-433-11	CARBON	22K	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-249-431-11	CARBON	15K	5%	1/4W
R316	1-249-415-11	CARBON	680	5%	1/4W F
R317	1-249-417-11	CARBON	1K	5%	1/4W F
⚠ R318	1-217-151-00	METAL	0.22	10%	2W
R319	1-249-441-11	CARBON	100K	5%	1/4W
R320	1-216-505-51	METAL OXIDE	1.2K	5%	5W F
R321	1-247-838-00	CARBON	2K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-420-11	CARBON	1.8K	5%	1/4W F
R324	1-249-421-11	CARBON	2.2K	5%	1/4W F
R325	1-249-425-11	CARBON	4.7K	5%	1/4W F
R326	1-247-860-11	CARBON	16K	5%	1/4W
R327	1-249-422-11	CARBON	2.7K	5%	1/4W F
R328	1-249-441-11	CARBON	100K	5%	1/4W
R330	1-249-439-11	CARBON	68K	5%	1/4W
R331	1-249-433-11	CARBON	22K	5%	1/4W
R334	1-249-436-11	CARBON	39K	5%	1/4W
R335	1-249-432-11	CARBON	18K	5%	1/4W
⚠ R501	1-249-381-11	CARBON	1	5%	1/4W F
⚠ R502	1-249-381-11	CARBON	1	5%	1/4W F
		< RELAY >			
RY301	1-515-920-11	RELAY (24V)			
		< TERMINAL >			
TM101	1-537-737-11	TERMINAL BOARD (SPEAKER)			

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER　POWER SWITCH

Ref. No.	Part No.	Description			Remarks
	1-673-147-11	POWER BOARD			
		**********			
		< CAPACITOR >			
C401	1-104-664-11	ELECT	47uF	20%	25V
C402	1-137-372-11	FILM	0.022uF	5%	50V
		< CONNECTOR >			
* CN401	1-770-318-11	PIN, CONNECTOR 7P			
		< TRANSISTOR >			
Q401	8-729-119-76	TRANSISTOR 2SA1175-F			
Q402	8-729-141-30	TRANSISTOR 2SC3623ATP-LK			
Q403	8-749-010-25	IC MN2488-OPY-M			
Q404	8-749-010-26	IC MP1620-OPY-M			
		< RESISTOR >			
R401	1-249-421-11	CARBON	2.2K	5%	1/4W F
R402	1-249-437-11	CARBON	47K	5%	1/4W
R403	1-249-414-11	CARBON	560	5%	1/4W F
⚠R404	1-249-408-11	CARBON	180	5%	1/4W F
⚠R405	1-249-408-11	CARBON	180	5%	1/4W F
⚠R406	1-217-151-00	METAL	0.22	10%	2W
⚠R407	1-217-151-00	METAL	0.22	10%	2W
⚠R408	1-249-393-11	CARBON	10	5%	1/4W F
**********					
	1-674-330-11	POWER SWITCH BOARD			
		**********			
		< SWITCH >			
⚠S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY) (ON/STANDBY)			
		< CONNECTOR >			
CN1	1-564-321-00	PIN, CONNECTOR 2P			
**********					

Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		**********	
⚠56	1-769-744-11	CORD, POWER (AEP,G,UK,MY,SP)	
⚠56	1-783-531-11	CORD, POWER (US,CND)	
⚠57	1-569-008-21	ADAPTOR, CONVERSION 2P (SP)	
⚠58	1-770-019-21	ADAPTOR, CONVERSION PLUG 3P (UK)	
112	1-694-516-11	TERMINAL, SPEAKER	
SP1	1-529-513-11	SPEAKER	
SP101	1-529-291-11	SPEAKER (2.5cm)	
SP102	1-529-290-11	SPEAKER (5cm)	
SP103	1-529-290-11	SPEAKER (5cm)	
⚠T501	1-433-726-11	TRANSFORMER, POWER (US,CND)	
⚠T501	1-433-728-12	TRANSFORMER, POWER (AEP,G,UK,MY,SP)	
⚠T601	1-433-731-11	TRANSFORMER, POWER (US,CND)	
⚠T601	1-433-732-11	TRANSFORMER, POWER (AEP,G,UK,MY,SP)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-769-329-21	CORD, CONNECTION (PIN-PIN)	
	1-791-467-11	CORD, SPEAKER (10m)(VE705)	
	1-791-467-21	CORD, SPEAKER (2.5m)	
	3-867-384-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	
	3-867-384-21	MANUAL, INSTRUCTION (GERMAN,SPANISH,DUTCH,SWEDISH,ITALIAN, PORTUGUESE,POLISH,RUSSIAN,DANISH, FINNISH,CHINESE)(AEP,G,UK,MY,SP)	
	4-222-421-01	SCREW (5 × 18), HEXAGON SOCKET	
*	4-985-459-01	WRENCH, HEXAGON SHAFT	
	X-4951-969-1	FRAME ASSY, GRILLE	
	X-4952-023-1	STAND (V) ASSY	
	X-4952-024-1	STAND (H) ASSY (VE705)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-664-79	SCREW +P 4 × 20 TYPE1	
#2	7-685-165-01	SCREW +PTP 4 × 25 TYPE1	
#3	7-685-645-79	SCREW +P 3 × 6 TYPE2 SLIT	
#4	7-682-147-01	SCREW +P 3 × 6	
#5	7-685-146-29	SCREW +P 3 × 8 TYPE2 SLIT	
#6	7-685-648-79	SCREW +P 3 × 12 TYPE2 NON-SLIT	
#7	7-685-647-79	SCREW +P 3 × 10 TYPE2 NON-SLIT	
#8	7-685-660-19	SCREW +BVTP 4 × 10 TYPE2 N-S	
#9	7-624-200-01	NUT, PUSH 1.5	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Sony Corporation
Home Audio Company

99G1686-1
Printed in Japan ©1999.7
Published by Quality Assurance Dept.